

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method for inactivating a transmissible spongiform encephalopathy (TSE) agent, comprising exposing the TSE agent to a thermostable proteolytic enzyme,

wherein the TSE agent is a prion, and

wherein the prion is exposed to the thermostable proteolytic enzyme at a temperature that is equal to or greater than 40° C.

2. (Canceled)

3. (Currently Amended) The method of claim 21, wherein the temperature is between 50° C. and 120° C.

4. (Original) The method of claim 3, wherein the temperature is between 55° C. and 85° C.

5. (Original) The method of claim 1, comprising exposing the TSE agent to the thermostable proteolytic enzyme at alkaline pH.

6. (Original) The method of claim 5, wherein the pH is from 8 to 13.

7. (Original) The method of claim 5, wherein the pH is from 10 to 12.

8. (Currently Amended) The method of claim 1, wherein the TSE agent is a prion dimer.

9. (Original) The method of claim 8, wherein the TSE agent is selected from the group consisting of Creutzfeld-Jacob disease; variant Creutzfeld-Jacob disease; Kuru; fatal familial insomnia; Gerstmann-Straussler-Scheinker syndrome; bovine spongiform encephalopathy; scrapie; feline spongiform encephalopathy; chronic wasting disease; and transmissible mink encephalopathy.

10. (Original) The method of claim 1, wherein the thermostable proteolytic enzyme is obtained from a thermophilic organism selected from the group consisting of archaea; hyperthermophilic bacteria and thermophilic bacteria.

11. (Original) The method of claim 10 wherein the thermophilic organism is selected from the group consisting of *Thermotoga maritima*; *Thermotoga neopolitana*; *Thermotoga thermarum*; *Fervidobacterium islandicum*; *Fervidobacterium nodosum*; *Fervidobacterium pennivorans*; *Thermosipho africanus*; *Aeropyrum pernix*; *Thermus flavus*; *pyrococcus* spp.; *Sulfolobus solfataricus*; *Desulfurococcus*; *Bacillus thermoproteolyticus*; *Bacillus stearo-thermophilus*; *Bacillus* sp. 11231; *Bacillus* sp. 11276; *Bacillus* sp. 11652; *Bacillus* sp. 12031; *Thermus aquaticus*; *Thermus caldophilus*; *Thermus* sp. 16132; *Thermus* sp. 15673; and *Thermus* sp. Rt41A.

12-30. (Canceled)

31. (Original) The method of claim 1, wherein the thermostable proteolytic enzyme is a serine protease.

32. (Original) The method of claim 1, wherein the thermostable proteolytic enzyme is a subtilisin.

33. (Original) The method of claim 32, wherein the thermostable proteolytic enzyme is a subtilisin derived from *Bacillus* bacteria.

34. (Original) The method of claim 33 wherein the thermostable proteolytic enzyme is a subtilisin derived from *Bacillus amyloliquefaciens*, *Bacillus lentus*, *Bacillus licheniformis*, *Bacillus subtilis* or is subtilisin PB92.

35. (Original) The method of claim 1, wherein the thermostable proteolytic enzyme is selected from the group consisting of MC-A, MC-3 and MC-4.